

Moderating Role of Consumer Psychology in The Application of Integrated Marketing Communication Techniques on Supply Chain Performance of Agrifood in Jos North LGA of Plateau State.

**Agbo, Patrick Onumah
Arinzechukwu Jude Okpara;
Maude Isaac Jonathan;
Azuakolam David Micah;
Abdul Chalmawal**

Department of Marketing, Faculty of Management Sciences,
University of Jos, Nigeria
Email. onumahpatrick@gmail.com.

Abstract

Agri-food firm addresses the vital requirements that are mandatory for the sustainability of wellbeing on this planet. The purpose of this study is to investigate the effect of integrated marketing communication techniques on supply chain performance of Agrifood in Jos North LGA of Plateau State. The study adopted a cross-sectional survey, while the target population was managers of 30 selected agrifood firms in Jos North LGA. Simple regression was used to test the formulated hypothesis, while process by Andrew Haye was adopted to test the moderating variable. The result indicate that IMC had a positive significant effect on supply chain performance, while consumer psychology has a strong moderating effect on supply chain performance. The study recommends management of agribusiness firms in Jos North LGA of Plateau State need to apply consumer psychology since it increases IMC and supply chain performance since it enhances patronage of agriculture produce and concluded that effort should be made to upgraded on the aspect of technology in IMC since the level of significance is moderate and have capability to enhance supply chain performance.

Keywords: Integrated marketing communication, public relation, word of mouth, event sponsorship, supply chain performance, consumer psychology.

1. Introduction

Agri-food industries involve organisations that seek to produce and turn raw materials into finished goods (agri-products), building networks of interaction starting from primary activities to consumers' feedback (Krishnan et al., 2020). An agri-food firm addresses the vital requirements that

are mandatory for the sustainability of wellbeing on this planet (Ali et al., 2021). After the cultivation of agri-grains, several practices are implemented, such as processing, packaging, retailing and distribution by logistics' suppliers, until goods reach consumers within a specified period (Krishnan et al., 2020). About 1.3 billion tonnes, or thirty three percent of the global agri-food supply that is intended for individual consumption, is currently being lost (Krishnan et al., 2020). The performance of any agri-food supply chain is determined by its own efficiency, since it plays important role in food industries especially in Jos North LGA, Plateau State. Supply chain performance provides fore way of systems to fulfill the end-customer necessities. Rajen (2020), adopted product capacity, availability, on-time delivery, lead time and all the necessary inventory and capacity in the supply chain to deliver that performance in a quick to respond manner. While Aityassine, Soumadi, Aldiabat, Al-Shorman, Akour, Alshurideh and Al-Hawary (2022), adopted availability, on-time delivery, lead time, supply chain cycle time and time delivery as supply chain performances indicators. This paper adopted time delivery, order accuracy and supply chain cycle time as dimensions supply chain performances. Based on the supply chain performance efficiency can be achieved throughout the entire chain, and each of the components, activities or processes as quality control, packaging and labelling, traceability, using information technologies and communication or purchase and use cold storage facilities, when these chain is breached or affected negatively results to non-performing activities of the supply chain (Africa Economic Outlook, 2022). Meanwhile, performance of the agri-food supply chain indicates the potential of the entire chain to

meet needed to be apply in order to get to the customers. But these factors are lacking which posed a huge barrier to total achievement of supply chain performance, which justifies the fact that there is lack of availability of produce, on time delivery, order accuracy and supply chain cycle time, when these are not fixed properly, there is tendencies it would curb the control limits of minimum and maximum inventory of Agrifood industries, thereby causing losses to the agrifood firm. Meanwhile, inconsistency in previous findings, demonstrated no significance and partial significance between integrated marketing communication and supply chain performance in the following studies (Aumer, 2025; Khanfar, Al-Daoud, Vasudevan, 2024); while Amalia and Hidayati's investigation (2022) reported negative effect on performance. Based on the inconsistency from previous studies the study introduced an intervening variable to moderate the integrated marketing communication and supply chain performance. Consumer psychology can be defined as: 'the utilization of distinctly psychological concepts and methods to understand (explain and predict) the dynamics underlying, influencing, and determining consumer behaviour' (Suchánek & Simona, 2024). From a psychological point of view, CP has two areas of focus: consumer information processing (CIP), 'which includes consumer cognition and affect. CIP has as its theory base social and cognitive psychology 'a behavioural decision theory (BDT), 'which includes topics such as choice models, economic psychology, and consumer search strategies' (Suchánek & Simona, 2024). CP is conceived in our research from these two perspectives. The motivation of this study hinges on the fact that the global population may hit 9.7 billion by 2050, meaning a rise in agri-food demand of between 59 and 98% (Schmitz et al., 2017). The factors contributing to agri-food wastage in the supply chain (SC) are shortage of warehouses, wastage disposal, processing degradation, insufficient packing, transportation delays and increased inventory caused by inaccurate forecasting, which negatively impact on supply chain performance (Bravi et al., 2019). However, Jos North LGA faces significant challenges due to a combination of climate change, infrastructure deficiencies, and socioeconomic disparities, which has negatively affected supply chain performance, which is begging for solution especially in the present

climatic dynamism. Rapid urbanization in Plateau State and Jos North has led to an increase in food demand, while traditional agricultural systems struggle to keep up with this demand, leading to food insecurity (Krishnan et al., 2020). Food industries are in quagmire to arrived as a possible solution through integrated marketing communication techniques to curb the intended food insecurity in Jos North LGA. On the other hand, integrated marketing communication contribute to supply chain performance by building a brand in memory and creating a brand image among agrifood companies (Sama, 2019). This concepts convey effectively the capabilities to strengthen agrifood produce in such a way that can ultimately increase firms value. Integrated marketing communication techniques have not been effectively applied in this areas effectively. The above issues suggest deficiencies in Integrated Marketing Communication (IMC) techniques, such as advertising, direct marketing, mobile marketing, social media campaigns, and public relations, underscoring the pressing need for in-depth investigation and strategic enhancements. IMC techniques recognizes that customers interact with brands across multiple touchpoints, and it strives to ensure consistency in these interactions (Sama, 2019). Bakalo and Amantie (2023), adopted advertising, direct marketing, mobile marketing, social media campaigns, and public relations as indicators of IMC techniques. Thoughtful IMC technique coordination across these dimensions has the capacity to amplify supply chain performance visibility, accentuate unique offerings, boost conversions, and counter external perceptions (Omingo & Mberia, 2019). This study intends to use these dimensions such as public relation, word of mouth, event sponsorship and mobile marketing as dimensions of IMC techniques. Meanwhile, all these dimensions will be established in unidimensional aspect, since it will enable the study to carry out the results in a holistic approach. Based on the above the study investigates the moderating role of consumer psychology in the application of integrated marketing communication techniques on supply chain performance of agrifood in Jos North LGA of Plateau State

1.2 Statement of the Problems

There are innumerable supply chain performance challenges faced by agrifood firms, which include limited trades, higher costs, delays in supply,

distance to the market and taxes. Meanwhile, poverty plays a critical role in limiting access to food, particularly in urban areas where the cost of living is higher, making poor households in Jos North LGA spending a large proportion of their income on food, and even small increases in food prices push them into deeper food insecurity (Khalid & Ndolo, 2024, Achieng, 2021). The combined effects of poverty, population growth, and suburbanization thus pose significant encounters to the food supply chain performance in Jos North LGA, requiring comprehensive techniques that address these interconnected issues, these changes disrupt the growing seasons and reduce crop yields, exacerbating food insecurity in the Jos North LGA. These factors directly affect the supply chain performance of agrifood, thereby increasing cost of food items and shortage of agricultural produce. When no measure is taken there is tendencies that the Jos North LGA would be plunged into food insecurity thereby portraying disaster. The challenges of IMC in complementing supply chain especially when it come to agriculture supply chain performance comprise data fragmentation, lack of real-time insights, system incompatibility, and insufficient IT infrastructure, also lack of trust between stakeholders, involvedness of regulatory compliance, poor logistics infrastructure, and demand for a single, integrated platform to facilitate seamless information sharing for better decision-making and to combat issues like post-harvest loss. These challenges posed a huge threat to food supply chain performance in Jos North LGA, when nothing is done will lead to catastrophic impact food supply chain and disaster in food security. Based on the above constraint and when nothing is done to salvage this situation have led to food insecurity and famine in the land. Therefor the study investigates moderating role of consumer psychology in the application of integrated marketing communication techniques on supply chain performance of agrifood in Jos North LGA of Plateau State.

1.3 Research Questions

1. What is the effect of integrated marketing communication on supply chain performance of Agrifood in Jos North LGA of Plateau State?
2. What is role does consumer psychology play in the relationship between integrated

marketing communication and supply chain performance of Agrifood in Jos North LGA of Plateau State?

1.4 Objective of the study

1. To determine the effect of integrated marketing communication on supply chain performance of Agrifood in Jos North LGA of Plateau State
2. To examine the role of consumer psychology in the relationship between integrated marketing communication and supply chain performance of Agrifood in Jos North LGA of Plateau State

2. LITERATURE REVIEW

2.1 Theoretical Foundation

2.1.1 Systems Theory

This theory has several principles and with respect to the first principle, there are two issues that organizations should consider in terms of their supply chains. This principle indicates that the longer the supply chain in terms of its links (that is, third, fourth or more party logistics providers are involved, the less adaptable the supply chain will be to possible changes needed for it to survive. The second principle of the systems theory states that supply chains offer the opportunity to outsource functions to other organizations, by adopting new techniques such as vendor-managed inventory, as a way to streamline its operations. High activity supply chains will need more management resources to ensure that benefits do emerge from them as compared to low activity chains. The third principle indicates that supply chains are not monolithic organizations artifacts but can be broken down into a number of smaller sub-systems. Rather than seeing organization strategy/structure, information technology and human factors as different static and separate dimensions of the Generic Supply Chain Model (Caddy and Helou, 1999). With respect to supply chains; the amount of goods, services, products, information or knowledge exchanged through the supply chain may grow in relationship to integrated marketing communication. Their application indicates that a deeper understanding of supply chain performance could be gained. This theory is relevant to this study as the general principles of the theory are applied to information systems considered with respect to the supply chain. Yet

one of the measures explored is supply chain performance. Therefore, this theory is important to the study since it focuses supply chain performance of agrifood. Thus, firm resources and capabilities determine firm supply chain performance. Therefore, firms should develop learning capabilities in order to reduce costs and maximize their value offer, improve customer service, increase sales growth and be efficient. The systems theory of communication is one of the most critical for a public relations practitioner to understand if they want to meet the goals of their organization. In general, systems theory states that all things can be evaluated as part of a larger whole. One of the most important concepts from systems theory is the emphasis on self-correcting systems. That is, when an entity receives feedback, it will correct the next cycle of activity it performs in regard to that feedback. This concept can be easily related to public relations when keeping in mind the rest of the theory, that an organization must be evaluated as one part of an interdependent whole. Systems theory, when applied in integrated marketing communication, can enhance the results of supply chain performance. Therefore, system theory presented a theoretical foundation for this study to examine the relationships between IMC techniques and supply chain performance of Agrifood in Jos North LGA of Plateau State.

2.2 Supply chain performance

It is the extent of performance that an organization attains in meeting its market-based criteria (Pinto, 2019). It represents the effectiveness with which an organization executes its market - oriented and financial goals. Assessing organizational performance usually entail considering both financial and non- financial indicators (Williams et al., 2019). Several of empirical studies done to investigate the correlation between supply chain management (SCM) and performance. (Ahmad & Karadas, 2021; Sahoo & Vijayvargy, 2021). The measures often used to evaluate supply chain performance include factors such as increased sales, enhanced costing accuracy, improved inter-departmental coordination, enhanced collaboration with suppliers, and improved customer coordination (Kumar & Singh, 2022). According to Alam (2022), any firm, particularly adopting a supply chain approach, is expected to result in improved organizational performance. Embracing a lean supply chain philosophy, organizations

promote employee involvement and empower every member to actively participate in identifying and eliminating waste, addressing issues, and driving continuous improvements throughout the supply chain. This approach also emphasizes on the importance of achieving shorter lead times, enabling a smooth and continuous flow of people, materials, equipment, and processes (Kumar et al., 2023). The aim is to deliver defect-free products to customers, precisely the supply chain facilitates seamless movement of goods, ensuring that they are delivered to the appropriate locations, precisely whenever required, and in the right quantities. within the manufacturing process, the presence of waste can significantly impact a business's profitability. In recent times, researchers, particularly in the manufacturing sector.

2.3 Stakeholder in Supply chain

According to Garcia-Gonzalez and Eakin (2019), there are various levels of collaborators who surfaces as stakeholders, and plays important role in the supply chain

Producers: Producers are mainly represented by feedstock and agro-chemical manufacturers and suppliers, have at this moment the task of increasing the information about their products and adopting high quality standards. This is related to consumer concerns regarding the effects of some plant and animal selection and breeding programmes on the animal welfare, environmental sustainability and health keeping. Farmers as producers plays important role in the line of supply chain and relate to others chains and collaborator (Garcia-Gonzalez & Eakin, 2019).

Processors: There is an emerging tendency for consolidation amongst processors to deal with the market power of retailers and emerging global competition. Industry concentration gives processors great market power to specify food requirements. They play important role in the chain of supply chain when it comes to food processing.

Distributors: This stakeholder plays important role in food supply chain through proper or handling of foodstuffs during transportation which lead to efficient supply chain.

Retailers: Traditionally, food supply and distribution comprised wholesale merchants and retail operators (small shopkeepers, market retailers, street sellers). Nowadays, it is changing to large, vertically integrated distributors and agro-industrial supply networks (which deal especially

with animal products) and national or international trading companies.

Consumers: The consumer should be seen as the central element of the food chain and need to be considered in all development phases of new processes and products. It is necessary to take into consideration the consumer viewpoint from the very beginning when developing new food products and processes, in order to meet the consumer demand to the largest extent possible.

Parameter of supply chain performance

Efficiency: Efficiency is according to Beamon (1994) the measure of how well the measurement of how well the resources expended are utilized. Supply chain efficiency is how well the resources in the Supply chain are utilized.

Supply chain Speed: Supply chain managers must strive for speed while maintaining accuracy, reliability and resiliency.

Supply chain Cost effectiveness: cost effectiveness in supply chain connote ways of achieving low cost in supply Chain, to achieve a low cost effectiveness the company need to have best possible internal and external performance. Internal performance can be for example yield, production leadtime. External performance is effecting the customers. cost effectiveness: in supply Chain is the total cost in the supply chain.

Supply chain transparency: *Supply chain transparency* is the practice of disclosing detailed and accurate information about operations and products, such as their origin and sourcing, manufacturing processes, costs, and logistics (Bai and Sarkis, 2020)

Food safety: Food safety is a basic need but there is a danger that it may be overlooked in the development of effective and efficient processes. Food safety remains a critical issue with outbreaks of foodborne illness resulting in substantial costs to individuals, the food industry and the economy. Food hygiene is the conditions and measures necessary to ensure the safety of food from production to consumption. It is a fundamental requirement of any food process that the food produced should be safe for consumption.

Customer satisfaction: Consumer satisfaction is a central concept in modern marketing thought and practice. The marketing concept emphasizes delivering satisfaction to consumers and obtaining profits in return. In almost every industry, Supply Chain Management has become a much more

important strategic and competitive variable. It affects all of the shareholder value levers cost, customer service, asset productivity, and revenue generation. The leading supply chain performers are applying new technology, innovations, and new process thinking to great.

2.4 Integrated Marketing Communication (IMC)

IMC is a process for managing the customer relationships that drive brand value. It is across-functional process for creating and nourishing profitable relationships with customer and other stakeholders by strategically controlling or influencing all message sent to these groups and encouraging data-driven, purposeful dialogue with them. IMC is a strategic business process used to plan, develop, execute and evaluate coordinated, measurable, persuasive brand communication programmes over time with consumers, customers, prospects and other targeted, relevant external and internal audiences. Recently, integrated marketing communication (IMC) has become wholly importance as a strategic marketing management approach. due to the helpfulness of the integration of marketing communications tools such as a sale promotion, public relations, direct marketing, advertising and private selling). This optimizes the impact of appropriate communication on targeted customers. IMC adopts a holistic view of marketing communications with the objective of synergy of effects. IMC framework relies upon the operation of multiple communication channels; which includes both traditional communications and E-integrated marketing communication (E-IMC), to enhance the involvement of each of them. Its objective is to develop and maintain strong beneficial relationships with all stakeholders through ongoing two-way dynamic dialogue and communications, which will have its definite positive impact on sales and profits. As for the term business competency; the capabilities of integrated management for various media channels help to reach superior results and synergistic outcomes. The aim of marketing communications is to inform, persuade, and remind consumers directly or indirectly about the goods and services. Different researchers have done the categorization of marketing communication tools. According to Othman et al., (2020), contemporary IMC elements consist of a wide diversity of recent decisions, such as cell phone marketing, online marketing, buzz-

marketing and social media, viral-marketing, labelled entertainment, product placement and guerrilla-marketing. These recent marketing communication rudiments and online media have transformed the crossing point between consumers and organizations, where there has been a shift in power between the media and the consumer, with consumer-generated media off-ramp consumers into satisfied inventors. Consumers now demand greater control over what, when, where and how they are exposed to corporate communications, there by blurring the traditional boundaries between public and private, producers and consumers. These present-day marketing communication systems constitute more than just an innovative way of reaching consumers; they have changed many aspects of branding and marketing from segmentation and targeting through to positioning, distribution and customer relationship management. In this study only three (3) integrated marketing communication techniques was adopted; public relations, word-of-mouth and events and experiences. Other classification of marketing communication tools has been advertising, public relations, sponsorship, sales promotion, direct mail, sales force, packaging, point of sale, retail store design or commercial offices, exhibitions and conferences, word of mouth (Odetola et al., 2020). Lastly, the integrated marketing communication techniques have been classified traditionally as advertising, public relations, sponsorship, exhibitions and trade fairs, E-communications, point-of-purchase communications, direct marketing communications, sales promotions, and personal selling. Conversely making feasible exchange process and building effective relationships, marketers need to examine the needs and wants of customers, develop a product or service that satisfy these needs, offer it a certain price, make it available through a particular place or path of allocation and build up a program of promotion or communication to create awareness and interest.

2.5 Roles of Integrated marketing communication supply chain performance

IMC combines several marketing communication tools. According to Kotler et al. (2001), IMC involves the use of various communication methods to convey clear, consistent information. To reach potential customers, and use traditional media, such as radio, television, and print. In the

same direction as Etzel et al. (2007) said that IMC is a tool in marketing involving advertising consisting of news about the organization as well as promotion of products, services, or ideas to attract customers. The demand of the supply chain is outstripping with the passage of time because the competition is increasing rapidly. Moreover, there also exist a shift of power between the intermediaries and the retailers. Due to this reason, it is important for any business to build the long-term relationship with the customers to stay in the market for the long-term basis. Indeed, there exists a powerful relationship between manufacturer, intermediary and retailer. The relationship among the manufacturers, intermediary and retailer is interdependent in an ideal world. Even if the relationship isn't integrated, communication messages for the customers can still be created by the organizations, because the manufacturer may develop the product for the customer (Vickery, Jayaram, Droge & Calantone, 2003).

2.6 Consumer Psychology

Consumer psychology is the study of consumer behavior including but not limited to how individuals or groups make decisions about what to buy, use, and dispose of. Consumer behavior analyzes the beliefs, perceptions, and reactions of an individual during the purchasing process. By understanding why individuals make certain decisions, businesses can create marketing campaigns, and sales strategies that target the right audience. Consumer psychology is influenced by a myriad of factors, each playing a crucial role in shaping purchasing behaviors and decision-making processes. One such factor is perception, wherein individuals interpret and contextualize information, consequently impacting their choices in the marketplace. For instance, when a product is perceived as possessing superior quality, consumers may demonstrate a willingness to invest more in it, reflecting the correlation between perceived value and purchase propensity. Motivation constitutes another influential determinant, wherein the underlying drivers propelling consumer decisions exert significant sway. For instance, individuals motivated by social status may exhibit a predilection towards luxury goods, driven by the desire to conspicuously display affluence and prestige to their peers and social circles

2.7 Hypothesis Development

2.7.1 Integrated Marketing Communication and Supply chain performance

Getting the right goods to the right place at the right time and for the lowest price is a straightforward definition of supply chain performance. Suppliers who create the systems and processes to achieve that performance target are more highly appreciated and are regarded as premium network partners (Lysons & Farrington, 2020). Determining supply chain performance appears to be required in order to evaluate what steps should be taken to ensure service delivery. A reliable and effective supply chain consists of products that are of the required quality, quantity, location, timing, and cost (Kibisu, 2020). Both quantitative and qualitative perspectives on supply chain performance are possible. Improvement of supply chain performance pattern through time delivery is a constant process, according to study by Alice, Mbugi and Lutege (2022), and it calls for both an analytical performance monitoring system. In order to meet key performance indicators, it also needs a mechanism to launch actions. By linking planning and execution and implementing performance goal realization methods into everyday tasks, Mbugi and Lutege (2022) further define "key performance indicator accomplishment" as this capacity. The impact of logistic supply networks on system revenues and costs is captured by a variety of specified metrics used to evaluate the time delivery. These variables, which are the result of supply chain management strategies, are regarded as supply chain performance drivers. Through ongoing planning, monitoring, and execution, managers must recognize them and continually improve them (Njoki, Ismail, & Osoro, 2021). Konyimbih, Mbura and Paul (2017) sought to find out the effect of marketing communication tools on the performance of rental properties in Nairobi CBD. The marketing communication variables utilized in the study include advertising, sales promotion, public relations and personal selling. Moreover, the researchers utilized a descriptive and causal comparative research design. Primary data was collected with the use of questionnaires while secondary data was sourced from published information. The study established that marketing communication tools such as public relations and personal selling had varied effects on the performance of rental properties. This study also reveals the effect that

public relations had on brand performance from the real estate perspective. According to Anabila, (2020), word-of-mouth as the opinion which consumers communicate to others in an unofficial way after they have used a product or taken a service. In the view of Bakalo and Amantie (2023), word-of-mouth is the approach to obtain others' experiences through the interaction of social network. This information communication channel is normally thought to be more neutral and more reliable, because it is mostly generated directly by consumers rather than by companies. Word-of-mouth refers to the passing of information by verbal means, especially recommendations, and also general information, in an informal, person-to-person manner. Word-of-mouth is typically considered face-to-face spoken communication, although telephone conversations, text messages sent via SMS, and web dialogue, such as online profile pages, blog posts, instant messages, and e-mails are also included in the purview of word-of-mouth communication (Nurhayani, Nurbaiti & Nasution, 2023). Order accuracy is what is anticipated to be given by a person or a group of people within a certain amount of time (Nur et al., 2023). The term "anticipated" in this context relates to outcomes obtained, work quality, adherence to requirements, and production of the necessary output. An employee's performance in an organization can be described as the output delivered in connection to their function and within a specified timetable (Keramatiyazd et al., 2023). The existing literature on supply chain performance adopted order accuracy in food and beverage manufacturing firms in Kenya reveals several conceptual, contextual, and methodological gaps. Conceptually, there is a lack of differentiation between the unique impacts of supplier, customer, and order accuracy on firm performance, and an incomplete exploration of all integration dimensions such as technological and strategic alignment.. Additionally, temporal changes affecting supply chain dynamics are not adequately considered. Methodologically, most studies are cross-sectional and rely on basic statistical methods, lacking advanced analytical techniques like structural equation modeling (SEM) or panel data analysis that could provide deeper insights. Moreover, there is a need for larger, more diverse samples and a mixed methods approach to offer a holistic understanding. Addressing these gaps would enhance the

comprehension of how supply chain integration influences the performance of food and beverage manufacturing firms. Sponsorships (event marketing), merge advertising and sales promotions with public relations and publicity strategies. Sponsorships increase simultaneously awareness of a company or product or services, build loyalty with a target audience, facilitate differentiate a product and service from its competitors, demonstrate commitment to a community or ethnic group, endow with merchandising opportunities. Most of the sponsorships strategies are initiated to build long-term associations. Though the value of sponsorships can be very difficult to measure, yet its presence in a firms integrated marketing communication plan is very essential. Recent statistics shows sports sponsorships make up about two-thirds of all sponsorships. This is a situation whereby a company organizes or uses an event as a platform for marketing programmes. Some companies organizes or sponsor event such as sports, cultural festivals, important world or national anniversaries etc. event sponsorship often associates a product or service with something the customers or attendances in meeting supply chain cycle time. Thus, the success of such event translates to an enhanced long-lasting product repositioning, create goodwill that increase supply chain cycle time through sales volume, give exposure to sponsor products, services, image and ultimately product. Therefore, the first hypothesis is as follows

H01: Integrated marketing communication does not have any significant effect on supply chain performance of Agrifood in Jos North LGA of Plateau State

2.8 Moderating role of Consumer psychology in relationship between IMC and Supply chain performance

Mobile Marketing has been described by the American Marketing Association (AMA) as “the process of planning and executing the conception, pricing, promotion, and distribution of ideas goods, and services to create exchanges that satisfy individual and organizational objectives (Eze et al., 2019). First, in this new era, the usage of mobile devices for digital media consumption has overcome the use of desktops. Second, the

coverage of mobile devices has extended to wearable devices and other smart devices, such as smartwatches, beyond smartphones and tablets. Third, the spread of the Internet of Things (IoT) has increased the integration and interconnectedness of devices. It is justifiable that mobile marketing still rapidly expanding. SMEs use this mobile marketing to attract consumers by promoting sales and promotions and using competitions and polling (Eze et al., 2019). Consumer psychology serves as a cornerstone for developing user-friendly designs and interfaces that enhance customer satisfaction and optimize the user experience in contemporary market landscapes. By delving into the intricate interplay of thoughts, beliefs, emotions, and perceptions, businesses can gain profound insights into consumer decision-making processes and tailor their marketing strategies accordingly (Cheery, 2023). The application of consumer psychology to marketing strategies necessitates a holistic understanding of target audiences' psychological underpinnings and idiosyncrasies. Performance is a multifaceted concept and a crucial factor in determining an companies success or failure. Wambua and Kenduiwo (2021) supplier integration and performance of manufacturing firms in Nairobi County. Customer integration which significantly affect performance through information sharing, development of the product and demand planning. Based on the above mobile marketing positively influence performance by enhancing innovativeness in product, supplier participation and coordinating and organizing operations. Therefore, the fourth hypothesis is as follows;

H02: Consumer psychology does not have moderating effect in the relationship between IMC and supply chain performance of Agrifood in Jos North LGA of Plateau State.

3. Methodology

The study adopted a cross-sectional survey as it enabled the researcher to examine, often multiple characteristics at once, of a subset at a specific point in time it also provided information about the current status of a population the way they exist (Dag & Petter, 2015). The target population for this study involved 120 respondents which comprises of multiple stakeholders and customers of agrifood, including thirty (30) managers,

distributors, processors and consumers of agrifood firms in Jos North LGA). Since the population is not large the entire population was used. A simple random sampling was adopted, where all the population was used since it was not large (Hair & Brunsveld, 2019). The study adapted questionnaire from the study of Cosmas, Fredrick and Kipkuruj (2024), to measure supply chain performance, while dimensions of IMC was from (Odetola et al., 2020; Bergin, 2019). Meanwhile, data was collected via primary sources of data collection to obtained data from the unit of analysis. 30 questionnaires were distributed and were retrieved. Data analysis was done through descriptive statistics by use of mean, standard deviation, skewness and kurtosis, while simple linear regression was used to test formulated hypotheses, while process by Andrew Hays (2024) was used to test the moderating effect of consumer psychology in the relationship between IMC and supply chain performance, data collected was processed using SPSS version 29.

4. Results and Discussion

This part presents the results and discussions derived from the study on moderating role of consumer psychology in the application of

integrated marketing communication techniques on supply chain performance of agrifood in Jos North LGA of Plateau State. The findings are organized to provide descriptive statistics for preliminary analysis, followed by a multiple linear regression analysis for deeper insights. About 120 copies of questionnaire was distributed only 90 was retrieved.

4.1 Demographic Profile of Respondents

The study offers valuable perceptions into the demographics of respondents, which may affect their supply chain performance of Agrifood in Jos North LGA of Plateau State. The demographic attributes are categorized by gender, marital status, highest qualification and years of working with the firm, as illustrated in Table 4.1. Appreciating these factors is fundamental as they can affect consumer psychology, integrated marketing communication techniques on supply chain performance of Agrifood.

Table 4.1 Demographic profile of respondents

Features	Category	Frequency	Percentage
Gender	Male	59	65.5
	Female	31	34.5
Marital Status	Single	34	37.7
	Married	56	62.3
Highest level of Education	OND/Diploma	13	14.4
	BSC/HND	61	67.7
	MSC/MBA	7	0.07
	Others	9	10.0
Years of Working with the firm	2years or less	17	18.8
	3-5years	25	27.9
	6years and above	48	53.3

Source: Field data (2026)

Based on Table 4.1 above, gender distribution reveals that a significant portion of male respondents are 59 respondents (65.5%), while 31 respondents (34.5%) are female. Based on marital status, it was revealed that for single only 34 respondents with (37.7%), while for married 56 respondents with (62.3%). For highest level of education, 13 respondents with (14.4%) had

OND/Diploma, 61 respondents with (67.7%) had BSc/HND, 7 respondents with (0.07%) MSC/MBA, while others had 9 respondents with (10.0%). For years of working with the firm, 17 respondents with (18.8%) have been in the firm for 2years or less, 25 respondents with (27.9%) had been with the firm for 3-5years, while 48 respondents had been with firm for 6years and above with (53.3%).

Table 4.2 Summary of Descriptive Statistics

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for mean		Min.	Max.
					Lower Bound	Upper Bound		
IMC	90	3.23	1.26	.04306	3.4458	5.8150	1.00	5.00
Consumer Psychology	90	3.54	0.45	.07143	3.3907	5.6724	3.00	5.00
Overall		3.32	1.14	.05130	3.5452	5.5511	1.00	5.00
supply chain performance		4.34	1.20	.04566	3.12312	4.3407	1.00	5.00

Source: Field data (2026)

Based on table 4.2. The measure of respondents that received the lowest mean score was public relation effect on supply chain performance at 4.34, indicating that of all measures based on the survey respondents were most neutral to statements pertaining to word of mouth and event sponsorship which affect supply chain performance. This in turn implied that the items that had the least effect on supply chain performance also had effect on other variables or has been influence by others variables.

Assessment of the variables levels of skewness and kurtosis is one of the method employ to determine normality. The Kolmogorov-Smirnov test is used to test the null hypothesis that a set of data comes from a normal distribution. Based on normality test the study employ Kolmogorov Smirnov test, since it produces test statistics that are used (along with a degrees of freedom parameter) to test for normality and its association to the normal distribution as displayed in table 4.3.

Table 4.3: Kolmogorov-Smirnov Test

4.1.2 Diagnostics/ Test of Assumptions

Variable	
IMC	2.210
Consumer Psychology	2.092
Supply chain performance	3.711

Source: SPSS v. 29

Table 4.3 Kolmogorov-Smirnovtest (K-S Test) revealed that the P-value of IMC is 2.212, consumer psychology is 2.092, while Supply chain performance dimensions is 3.711 are all greater than significance level or margin of error of .05. Therefore, the data is normally distributed. According to Momeni, Gildeh, & Hesamian (2017), pointed out that Kolmogorov-Smirnov rule states that the critical value of D is found from the K-S table values for one sample test. Acceptance Criteria: If calculated value is less than critical value accepts null hypothesis. Rejection Criteria: If calculated value is greater than table value reject null hypothesis.

4.2 Results on Simple Regression

Regression analysis is a widely recognized method for examining the relationships between multiple and simple independent variables and a dependent variable, particularly when these variables are correlated. In this study, simple regression analysis was employed to explore the consumer psychology, integrated marketing communication techniques on supply chain performance of Agrifood in Jos North LGA of Plateau State. Meanwhile, prior to conducting the analysis, essential assumptions were checked, including sample size, independence of residuals, outliers, multicollinearity, normality, linearity, and homoscedasticity. These preliminary analyses ensured the validity of the regression model, allowing for a reliable assessment of the relationship between integrated marketing communication techniques and supply chain

performance of Agrifood in Jos North LGA of Plateau State.

H01: IMC does not have any significant effect on supply chain performance of Agrifood in Jos North LGA of Plateau State.

4.2.1 Hypothesis One

Table 4.4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.890 ^a	.782	.786	1.48432	.000

a. Predictors: (constant), IMC

b. Dependent variable: supply chain performance
Source: SPSS v.29

Table 4.5: ANOVA

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	48.63051	1	4863.051	72.409	.000 ^b
	Residual	493.520	89	2.203		
	Total	53.56571	90			

a. Dependent Variable: supply chain performance

b. Predictors: (Constant), IMC

Table 4.6: Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	64.201	.414		3.200	.000
	IMC	.941	.020	.890	7.981	.000

a. Dependent Variable: supply chain performance

Table 4.5 present the results from the model summary table which showed that R-square=0.782 indicating that IMC predicts 78.2% of the time delivery. The remaining 21.8% means there are other factors that can be attributed to supply chain performance. The linear regression F statistics shown in the Table 4.6 shows that there was a statistical and significant effect of IMC on supply chain performance ($F = 72.409$, $p < .05$). This means, the probability of those results occurs by chance is < 0.000 . And it can be concluded as the overall regression model is significant ($1, 29 = 72.409$, $P < 0.000$, (that is the regression model is a good to fit the data). Therefore, there is significant effect of IMC on supply chain performance as established in this study. In other words, independent variables (IMC) significantly predict the dependent variable (supply chain performance of Agrifood in Jos North LGA of Plateau State). The coefficients table 4.7 indicated the outcome from simple regression analysis that was performed in order to evaluate the single effect of IMC on supply chain performance, the simple linear regression model $Y = \beta_0 + \beta_1 X_1 + \epsilon$ is $Y = 64.201 + 0.890X_1 + \epsilon$. This means that, when other factors are held constant, an improvement in the IMC by 1%, improves supply chain performance by 89.0%. The result found that IMC has significant effect on supply chain performance of Agrifood in Jos North LGA of Plateau State. In addition, the relationship between the constructs is positive ($\beta = 0.941$; $t = 7.981$, $p = 0.000$). Meaning that the two variables is significant. This therefore, indicates that IMC based on this study has effect on supply chain performance of Agrifood in Jos North LGA of Plateau State. Hence, the null hypothesis was not supported and thus the study concluded that IMC have significant effect on supply chain performance of Agrifood in Jos North LGA of Plateau State.

4.2. Moderating result

4.2.2 Hypothesis Two

H02: Consumer psychology does not have moderating effect in the relationship between IMC and supply chain performance of Agrifood in Jos North LGA of Plateau State.

The study also analysed the moderating role of consumer psychology on the relationship between IMC and supply chain performance of Agrifood in Jos North LGA of Plateau State. The indirect

impact of the moderating function of consumer psychology as a mechanism to moderate the effect amongst IMC and supply chain performance, reveals that when consumer psychology is applied as a moderate variable, there are positive impact among IMC and supply chain performance. Moreover, the study conducted a moderation effect using Process by Andre Hayes, to test using the coefficients and their corresponding standard error ($SE = .0037$, $t = 6.7748$). Meaning that consumer psychology has a moderating effect in the relationship between IMC and supply chain performance. Meaning that results showed that consumer psychology can be straightens the relationship between IMC and supply chain performance. Moderating effect analysis summary is presented in table 8 below.

Table 4.6: Moderation Result

Model Summary

	R	R-sq	MSE	F	df1	df2
p	.4761	.2266	10.8729	23.1501	3.0000	
	237.0000	.0000				
Model						
	coeff	se	t	p	LLCI	ULCI
constant	-1.1366	2.1260	-.5346	.5934	-5.3248	3.0517
CP	.7332	.1033	7.0954	.0000	.5296	.9367
SCP	.5566	.1473	3.7797	.0002	.2665	.8468
Int_1	-.0248	.0037	6.7748	.0000	-.0321	.0176

4.3 Discussion of findings

Based on the hypothesis one, the result found that IMC has a significant effect on supply chain performance of Agrifood in Jos North LGA of Plateau State. The result align with the study of Njoki, Ismail and Osoro (2021) which indicate that public relations play a vital role in creating awareness on supply chain performance of firms, since it attract patronage. Based on the hypothesis two, the result found that consumer psychology have a moderating role to play between IMC and supply chain performance word of mouth has a significant effect on supply chain performance of Agrifood in Jos North LGA of Plateau State. The result conforms with the study of Chebichii,

Namusonge and Makokha (2021) which indicates that word of mouth plays a significant role in announcing activities of firms.

5. Conclusion and Recommendation

5.1 Conclusion

The use of communication media is always regarded as vibrant decision for very organization. The main objectives of communication includes providing information, peruse, remind or retain the customer can only be successful when all the communicative tools create and execute similar message and bring synergy among them. Integrated marketing communication plays this role to bring this harmony and ensure effective communications. Whereas social media, the new tool of marketing communication, is the fastest growing and widely use media by mass population is not only cheap to access but also more effective to carry more detail information as the same time has the power to target individuals and can promote marketing campaign. This rapidly changing technological environment also signals that marketers should also be aware of the change and be consumer oriented in term of communication message and its vehicles to reach target audience. A unique and meaningful presence in social media through mobile marketing has incorporated with the aggregation of IMC plan can only help firm for long-term sustainable objectives and goals achievements. The study concluded that when consumer psychology is introduced by agrifood business owners there is strong effect on IMC and supply chain performance

5.2 Recommendation

1. Agribusiness firms in Jos North LGA of Plateau State need to sustain the IMC approach since it enhances level of agrifood supply chain performance.
2. Management of agribusiness firms in Jos North LGA of Plateau State need to apply consumer psychology since it increases IMC and supply chain performance since it enhances patronage of agriculture produce.

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